

"HYDRINO" POWER SOURCE TURNS PHYSICS ON ITS HEAD

It seems too good to be true: a new source of near-limitless power that costs virtually nothing, uses tiny amounts of water as its fuel and produces next to no waste.

Randell Mills, a Harvard University medic who also studied electrical engineering at Massachusetts Institute of Technology, claims to have built a prototype power source that generates up to 1,000 times more heat than conventional fuel. Independent scientists claim to have verified the experiments and Dr Mills says that his company, Blacklight Power, has tens of millions of dollars in investment lined up to bring the idea to market. And he claims to be just months away from unveiling his creation.

Dr Mills claims he has produced a new form of hydrogen, the simplest of all the atoms with just a single proton circled by one electron. In his "hydrino", the electron sits a little closer to the proton than normal, and the formation of the new atoms from traditional hydrogen releases huge amounts of energy.

This is scientific heresy. According to quantum mechanics, electrons can only exist in an atom in strictly defined orbits. The shortest distance allowed between the proton and electron in hydrogen is fixed. The two particles are simply not allowed to get any closer.

According to Professor Rick Maas, a chemist at the University of North Carolina who was allowed access to Blacklight's laboratories, the first product to be built with Blacklight's technology will be a household heater which will be available in as little as four years. As the technology is scaled up, he says, bigger furnaces will be able to boil water and turn turbines to produce electricity. In a recent economic forecast, Prof. Maas calculated that hydrino energy would cost around 1.2 cents [US] per kilowatt hour. This compares to an average of 5.0 cents per kWh for coal and 6.0 cents for nuclear energy.

(Source: The Guardian, 4 November 2005, <http://www.guardian.co.uk>)

SOLAR PANEL BREAKTHROUGH

In a scientific breakthrough that has stunned the world, a team of South African scientists has developed a revolutionary, highly efficient solar power technology that will enable homes to obtain all their electricity from the sun.

These unique solar panels will make it possible for houses to become completely self-sufficient for energy supplies. The panels are able to generate enough energy to run stoves, geysers [hot-water heaters], lights, TVs, fridges, computers—in short, all the "mod cons" of the modern house. The new technology should be available in South Africa within a year.

Through a special converter, energy can be fed directly into the wiring of existing houses. New powerful storage units will allow energy storage to meet demands even in winter. While direct sunlight is ideal for high-energy generation, other daytime light also generates energy via the panels. The panels are so efficient they can operate through a Cape Town winter.

A team of scientists, led by University of Johannesburg (formerly Rand Afrikaans University) scientist Professor Vivian Alberts, achieved the breakthrough after 10 years of research. The South African technology has now been patented across the world.

The German company IFE Solar Systems, one of the world leaders in solar energy, has invested more than R500 million in the South

African invention and is set to manufacture 500,000 of the panels before the end of the year at a new plant in Germany.

The new alloy solar panel is much more efficient than the costly old silicon solar panels. The new panel consists of a thin layer of a unique metal alloy that converts light into energy. The photo-responsive alloy can operate on virtually all flexible surfaces, which means it could in the future find a host of other applications.

Professor Alberts said that the new panels are approximately five microns thick (a human hair is 20 microns thick), while the older silicon panels are 350 microns thick. The cost of the South African technology is a fraction of the less-effective silicon solar panels.

Alberts also said that in Switzerland it is already compulsory for all new houses to include solar technology to lessen energy demands on national grids.

(Source: Saturday Argus, South Africa, 11 Feb 2006, <http://www.capeargus.co.za>)



NEWSCIENCE NEWSCIENCE NEWSCIENCE

THE HUTCHISON EFFECT — AN EXPLANATION —

by Mark A. Solis © 1999

People often ask, "What exactly is 'the Hutchison effect'?" This brief essay is an attempt to answer that question to the satisfaction of the majority.

First of all, the Hutchison effect is a collection of phenomena which were discovered accidentally by Canadian researcher John Hutchison during attempts to study the longitudinal waves of Tesla back in 1979. In other words, the Hutchison effect is not simply a singular effect. It comprises many effects.

The Hutchison effect occurs as the result of radio-wave interferences in a zone of spatial volume encompassed by high-voltage sources, usually a Van de Graaff generator, and two or more Tesla coils.

The effects produced include levitation of heavy objects, fusion of dissimilar materials such as metal and wood (exactly as portrayed in the movie *The Philadelphia Experiment*), the anomalous heating of metals without burning adjacent material, spontaneous fracturing of metals (which separate by sliding in a sideways fashion), and both temporary and permanent changes in the crystalline structure and physical properties of metals.

The levitation of heavy objects by the Hutchison effect is *not*—repeat *not*—the result of simple electrostatic or

electromagnetic levitation. Claims that these forces alone can explain the phenomenon are patently ridiculous and easily disproved by merely trying to use such methods to duplicate what the Hutchison effect has achieved, which has been well documented both on film and videotape and has been witnessed many times by numerous credentialled scientists and engineers.

Challengers should note that their apparatus must be limited to the use of 75 watts of power from a 120-volt AC outlet, as that is all that is used by Hutchison's apparatus to levitate a 60-pound cannonball.

The fusion of dissimilar materials, which is exceedingly remarkable, indicates clearly that the Hutchison effect has a powerful influence on Van der Waals' forces. In a striking and baffling contradiction, dissimilar substances can simply "come together", yet the individual substances do not dissociate. A block of wood can simply "sink into" a metal bar, yet neither the metal bar nor the block of wood come apart. Also, there is no evidence of displacement such as would occur if, for example, one were to sink a stone into a bowl of water.

The anomalous heating of metal without any evidence of burning or scorching of the adjacent materials (usually wood) is a clear indication that possibly the nature of heat may not be completely understood. This has far-reaching implications for

thermodynamics, which hinges entirely on the presumption of such knowledge.

It should be noted that the entirety of thermodynamics is represented by the infrared portion of the electromagnetic spectrum, which is insignificant in a context of zero hertz to infinite hertz. The anomalous heating exhibited by the Hutchison effect shows plainly that we have much to learn, especially where thermodynamics and electromagnetism meet.

The spontaneous

fracturing of metals, as occurs with the Hutchison effect, is unique for two reasons: (1) there is no evidence of an "external force" causing the fracturing; and (2) the method by which the metal separates involves a sliding motion in a sideways direction, horizontally. The metal simply comes apart.

Some temporary changes in the crystalline structure and physical properties of metals are somewhat reminiscent of the "spoon bending" of Uri Geller, except that there is no one near the metal samples when the changes take place. One video shows a spoon flapping up and down like a limp rag in a stiff breeze.

In the case of permanent changes, a metal bar will be hard at one end, like steel, and soft at the other end, like powdered lead. Again, this is evidence of strong influence on Van der Waals' forces.

The radio-wave interferences involved in producing these effects are produced from as many as four and five different radio sources, all operating at low power. However, the zone in which the interferences take place is stressed by hundreds of kilovolts.

It is surmised by some researchers that what Hutchison has done is tap into the zero-point energy (ZPE). This energy gets its name from the fact that it is evidenced by oscillations at zero degrees Kelvin, where supposedly all activity in an atom ceases. The energy is associated with the spontaneous emission and annihilation of electrons and positrons coming from what is called "the quantum vacuum". The density of the energy contained in the quantum vacuum is estimated by some at 10^{13} joules per cubic centimetre, which is reportedly sufficient to boil off the Earth's oceans in a matter of moments.

Given access to such energies, it is small wonder that the Hutchison effect produces such bizarre phenomena. At the present time, the phenomena are difficult to reproduce with any regularity. The focus for the future is, first, to increase the frequency of occurrence of the effects and then to achieve some degree of precision in their control. The work is continuing at this time. Before long, we shall see what progress can be made.

(Source: by Mark A. Solis © 16 February 1999; via <http://www.geocities.com/ResearchTriangle/Thinktank/8863/main.html>. For updates, visit the web page <http://www.americanantigravity.com/hutchison.html>.)



CELLULAR SOUNDS AND THE HEALING PROPERTIES OF MUSIC

People have been aware of music's healing properties since the times of Pythagoras and Aristotle. Russians have long believed in the medicinal effects of the sound of church bells.

A Los Angeles scientist believes that living cells can make distinct sounds—a finding which may some day help doctors "hear" diseases.

Jim Gimzewski, a 52-year-old UCLA chemist, calls the study of cell sounds *sonocytology*. He became interested in the sound of cells in 2001 after a medical researcher told him that when living heart cells were placed in a Petri dish with appropriate nutrients, the cells would continue to pulsate.

Gimzewski wished to find out whether such tiny vibrations would produce a detectable sound. He conducted a series of experiments using complex equipment. Those experiments showed that the cells really could make a sound, though it was detectable only by an especially sensitive instrument.

Gimzewski and his assistant used yeast cells for conducting their research of cellular noise. They found that the pitch of the sound wave would be higher if the cells were sprinkled with alcohol. The dead cells would give off a low, rumbling sound.

The researchers also found that yeast cells with genetic mutations produced a slightly different sound than did normal yeast cells.

They hope that the technique might eventually be applied to diagnosing diseases such as cancer, which is thought to originate with changes in the genetic makeup of cells.

It is already clear that the future of medicine hinges specifically on research of cellular activities. The world of sounds takes part in those processes in a most active manner.

"Scientists have long noticed that music could impact the blood circulation, e.g., change its rate," says music therapy specialist Sergei Shushardzhan. "However, it was not until recently that scientists have realised that music therapy is an interdisciplinary branch of science that came into being at the junction of many areas. There is a purely physical side of the phenomenon, since music is the sound, rhythm, frequency, etc.

"At the same time, there is a medical aspect of it—a reaction of the body to music

at the psychological and cellular levels. Our team, for example, has conducted a series of extremely interesting experiments involving cancer cells and microbe cells."

The cell cultures were placed in between loudspeakers and subjected to the sounds of music in four different styles: classical, easy listening/symphonic, rock and mediaeval hymns. The latter were found to have the strongest impact.

The interaction processes are very complex. By and large, one style of music is able to boost the growth of cells while another can suppress it.

"Probably the method will help researchers find a key to control cellular processes and discover a way to understand the development mechanism of malignancies," says Shushardzhan.

Studying the effects of musical rhythm on the human body, e.g., the brain functions, is another exciting topic of research. Scanning the brain while patients listened to different kinds of music brought out interesting data.

For example, blood circulation was reported to have increased in both hemispheres of the brain as patients were listening to music with a very aggressive rhythm structure.

The findings are just another piece of evidence that the sounds of the outside world and the "sounds" of our body are interrelated in a most complex way. Still, there are more questions than answers.

(Source: Pravda, 27 February 2006, <http://english.pravda.ru/science/health/76536-music-0>; also see www.keelynet.com)

ELECTRICITY FROM WAVES

In theory, the idea is simple. Spinning copper wires through a stable magnetic field makes electricity—lots of electrons jumping off the magnetic field and zooming through a conductive metal. And since the ocean waves are already moving, why not cobble together a machine to harness that energy?

"I believe it'll change the world," said second-generation inventor Tom Woodbridge, a NASA engineer who runs Aqua-Magnetics Inc. in Florida. He has six US and international patents on his Ocean Swell and Wave Energy Conversion system, a \$30,000 grant from the state's Technological Research and Development Authority and prototypes that take up most of the family garage.

Think of the device as like a pogo stick inside a floating drum. The rocking motion of the waves pushes a long cylinder of magnets up and down a copper coil.

Woodbridge's prototypes stand about head high, upside down in the garage and are painted bright yellow, as the Coast Guard required. His small model generates 10 watts of power in a six-inch wave chop. A full-scale version could generate 160 kilowatts. That one buoy is enough to power 160 houses, following the rule of thumb that the average US home uses about 1,000 kW of electricity each month. Smaller versions could make navigational buoys self-powered, providing warning lights and navigational signals to ships.

(Source: Knight-Ridder/Tribune, 12 Dec 2005; also see <http://www.easternecho.com>)

